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10/089,196	06/13/2002	Klaus Weber	AZ.3129	3273

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Robert W Becker & Associates  
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EXAMINER

FOX, CHARLES A

ART UNIT PAPER NUMBER

3652

DATE MAILED: 10/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

*HL*

## Office Action Summary

Application No.

10/089,196

Applicant(s)

WEBER ET AL.

Examiner

Charles A. Fox

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 20-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 20-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 June 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 38 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear how a receiver may be simultaneously opened and closed. It seems the applicant is wishing to claim all receivers are either opened or closed at the same time, this is how the claim is treated in the art rejection below. Clarification is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 20-24 are rejected under 35 U.S.C. 102(b) as being anticipated by List. Regarding claim 20 List US 4,073,372 discloses an apparatus for handling articles between process stations comprising:

a conveying device (23) for linear transport of said articles;

at least one rotatable handling device (5) for moving said articles between said conveying device and said process stations;

wherein said conveying device is disposed between at least two process stations;

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wherein said handling device is separate and disposed above from said conveying device.

Although the articles are not substrates, it is noted that this is not a positive structural limitation of the claim, but merely a functional recitation. Since the reference could be used without modification for moving substrates it properly anticipates the claim.

Regarding claim 21 List also discloses that the handling device is disposed along a central axis of said conveying device.

Regarding claims 22 and 23 List further discloses that said articles are disposed in receivers (4) on said rotatable handling device about an imaginary circle, said receivers being evenly spaces along said handling device.

In regards to claim 24 List also disclosed that said rotatable handler (5) has radial arms (6) with said receivers disposed on said arms.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 32-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over List as applied to claim 20 above, and further in view of Toshima. In regards to claims 32,33 and 35 List teaches the limitations of claim 20 as above, they do not teach the

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article handling device as having multiple articles placed upon it at the same time.

Toshima US 6,007,675 teaches a handling device for substrates comprising:

- a plurality of substrate receivers, wherein said substrates are all placed along the circumference of an imaginary circle;

- wherein said receivers are uniformly spaced along said imaginary circle;

- wherein said handling device is provided with radial arms upon which the receivers are disposed on:

- wherein said process devices are also disposed along said imaginary circle;

- and said process stations are diametrically opposed to one another in relation to said imaginary circle;

- wherein a common drive system (75) is provided for securing the substrates to said process stations. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the apparatus taught by List with the article handler taught by Toshima in order to allow the apparatus to handle multiple article at the same time thereby decreasing the cycle time for processing a batch of substrates.

In regards to claim 34 It would have been obvious to one of ordinary skill in the art, at the time of invention that the function of the process chambers can be the same or different and the apparatus will still work in the same manner. Therefore it is considered an obvious design choice to have like processing chambers in the device.

Claims 25-31,36 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over List as applied to claim 22 above, and further in view of Lynch. Regarding claims 25-29 List teaches the limitations of claim 22 as above, he does not

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teach the conveying device as being a belt. Lynch US 4,595,440 teaches a conveyor (21) for holding and moving substrates (25) from an input position to an output position in a process machine, said conveyor comprising:

carriers (25) for holding substrates;

wherein said carriers are uniformly spaces along said conveyor belt;

said carriers being disposed along a central axis of said conveyor belt;

. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the apparatus as taught by List with a conveyor belt as taught by Lynch in order to move the articles sequentially between process devices in an indexed manner that is exact and easy to control.

In regards to claims 30,31,36 and 37 While List and Lynch do not teach two carriers being positioned on the imaginary circle it would have been obvious to one of ordinary skill in the art, at the time of invention to space the carriers taught by Lynch in such a way so as have two carriers align with the imaginary circle taught by List in order to allow more of the radial arms of the handler to work with every movement of the handler.

Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over List as applied to claim 22 above, and further in view of Bacchi et al. List teaches the limitations of claim 22 as above, he does not teach providing a controller to drive the receivers. Bacchi et al. US 6,357,996 teaches a receiver (8) for a substrate that is opened and closed by a controller that receives signals from a charge-coupled device. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the

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device taught by List with a control for the operation of the receivers as taught by Bacchi et al. in order for the device to grasp and release the articles at predetermined times and locations.

***Response to Amendment***

The amendments to the claims filed on July 7, 2005 have been entered into the record.

***Response to Arguments***

Applicant's arguments filed July 7, 2005 have been fully considered but they are not persuasive. Regarding the 35 U.S.C. 112 rejection of claim 38 the amendment to the claim has rendered the claim less definite. Applicant now has individual receivers being simultaneously opened and closed. The way the claim is written the controller is operating on an individual receivers. Since the indefiniteness problem of the claim has not been addressed the rejection is made final.

Regarding the argument that the List reference does not teach multiple process stations, this is not the case. List discloses the process station may be a filling station with a closure station further down the line. The fact that List may use two rotatable devices meets the limitation of providing at least one rotatable device. As such List meets the limitations of the claims as written and the rejections are made final.

Regarding the combination of List and Toshiba the motivation to combine comes from Toshiba who teaches placing a plurality of process devices about an imaginary circle for sequential processing of wafers to save time. That is motivation enough to make the combination.

Regarding the combination of List and Lynch, Lynch teaches the usefulness of placing the wafers at uniform position on a conveyor and indexing the conveyor a known distance to aid in the processing of the wafers. Thus the uniform spacing of the wafers simplifies the controls while helping to improve the yield of the wafers.

Regarding the combination of List, Lynch and further Bacchi et al. the motivation to combine is found in Lynch as outlined above and further in Bacchi et al. teaches a control device for a wafer process device to insure that wafers are aligned and handled according to their alignment, thereby increasing the yield of wafers by handling any misaligned wafers accordingly. Thus the controls taught by Bacchi would have been obvious improvements to the device taught by List and Lynch.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.



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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles A. Fox whose telephone number is 571-272-6923. The examiner can normally be reached between 7:00-4:00 Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen D. Lillis can be reached at 571-272-6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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9-30-05



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